

REMARKS/ARGUMENTS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 1-3 are pending in this case. Claim 1 is amended by the present amendment. Amended Claim 1 is supported by the original claims and specification.¹ Amended Claim 1 adds no new matter.

The outstanding Office Action includes a rejection of Claims 1-3 under 35 U.S.C. §103(a) as unpatentable over Härtel (U.S. Patent No. 4,744,547) in view of Itsushi et al. (Japanese Patent No. 2936989, assigned to Hitachi Plant Eng. & Constr. Co. Ltd., hereinafter “Hitachi”).

With respect to the rejection of Claims 1-3 under 35 U.S.C. §103(a) as unpatentable over Härtel and Hitachi, the rejection is respectfully traversed.

First, applicant respectfully resubmits that Härtel is non-analogous art with respect to the present invention. The outstanding action stated the conclusion on page 3, paragraph 5 that “Both Hartel and Applicants’ claimed invention are in the same field of invention and in the same art. Thus, it is readily apparent that Hartel is analogous art.”

It is respectfully submitted that the conclusory statement that Härtel is analogous art does not meet the standard for this determination, as held by the Court of Appeals for the Federal Circuit in cases such as *In re Oetiker*. “In order to rely on a reference as a basis for rejection of an applicant’s invention, the reference must either be in the field of applicant’s endeavor, or, if not, be reasonably pertinent to the particular problem with which the inventor was concerned.” *In re Oetiker*, 24 USPQ2d 1443, 1445 (Fed. Cir. 1992), see also MPEP §2141.01(a).

¹See e.g. Specification at page 7, lines 23-27.

Härtel is clearly not in applicant's field of endeavor as it does not disclose an active damper having any vibration element like the claimed one that will "vibrate the mass member with a driving force generated by an input of a control pulse signal corresponding to vibration of a vibration generating source." As noted in *In re Ellis*, 177 USPQ 526, 527 (C.C.P.A. 1973), there has to be a similarity of both structure and function for there to be a common field of endeavor. Simply making the broadest generic statement that the passive damper and the active damper are both dampers misses the point made by the court as to the required showing of a similar structure and function.

Furthermore, Härtel only discloses a passive engine mount that clearly is not relevant to an active damping solution to the problem of actively damping a member without creating a chattering vibration or sound due to the driving signal of the active damper.

Härtel discloses an engine mount 18 having a U-shaped support center or core 17 connected through elastomer bodies 15, 16 which serves as a support point for a leaf spring 1. It is designed to support a bracket 21 and a fastening point 22 by way of wedge-shaped rubber elements 19 and 20 connected to the support center or core 17. The elastomer support 4 provided in the leaf spring 1 is connected to the engine side by way of metal plate 5 and threaded stud 6 connected to the elastomer support 4.²

Thus, the engine mount of Härtel is fixed at the engine side by means of the stud 6 and is fixed to the car body side by the fastening point 22. The mechanism is designed to attenuate vibrations by compressive deformation of the elastomer support 4, elastomer bodies 15, 16, rubber elements 19 and 20, and leaf spring 1. The engine mount of Härtel is not composed as a dynamic damper for attenuating vibration input by the resonant action of a mass member and a rubber elastic coupler. Thus, applicant respectfully submits that the claimed invention, an active dynamic damper connected to a single vibration damping object

² See Härtel, column 4, lines 11-21 and Figure 2.

member, is clearly very different from the apparatus disclosed in Härtel, a passive damper connected between two objects, such as an engine and a car frame.

“A reference is reasonably pertinent if, even though it may be in a different field from that of the inventor's endeavor, it is one which, because of the matter with which it deals, logically would have commended itself to an inventor's attention in considering his problem.” *In re Clay*, 23 USPQ2d 1058, 1061 (Fed. Cir. 1992), see also MPEP §2141.01(a). Applicant submits that the structure and function of the apparatus disclosed by Härtel is very different from the structure and function of the present invention and that the matter with which Härtel deals would not logically commend itself to anyone's attention in considering the above-noted problem of concern.

The claimed invention solved the problem of actively damping a vibration damping object member without creating a chattering vibration or sound due to the driving signal of the active damper. There is no disclosure in Härtel regarding any means to actively damp a member, much less actively damp a member without creating a chattering vibration or sound due to the driving signal. Härtel does not consider the problem solved by the present invention, much less suggest a solution for it. Thus, one skilled in the art would not look to the Härtel reference for guidance in solving the problem solved by the present invention.

Accordingly, applicant respectfully submits that Härtel is non-analogous art with respect to the claimed invention. Use of such non-analogous art is insufficient to present a *prima facie* case of obviousness. See *In re Oetiker* at 1446. See also *In re Clay* at 1061.

Further, applicant submits that the use of Härtel in an obviousness rejection is improper as the combination proposed would change the principle of operation of the cited reference. Härtel teaches a passive damper, where the claimed invention is an active damper. Thus, the combination proposed would change the principle of operation of the cited reference from a passive damper to an active damper. Further, the proposed combination

would render one of the studs 6 or 8 superfluous, as only one connection to a vibrating member to be damped is needed for an active damper. Thus, the suggested combination of references would require a substantial reconstruction and redesign of the elements shown in the primary reference as well as a change in the basic principle under which the primary reference was designed to operate. Accordingly, applicant respectfully submits that the teachings of the cited references are not sufficient to render the claims *prima facie* obvious. See *In re Ratti*, 270 F.2d 810, 813, 123 U.S.P.Q. 349, 352 (C.C.P.A. 1959) and MPEP §2143.01.

Assuming *arguendo* that Härtel can properly be used in a §103 rejection, applicant respectfully submits that the required evidence of some reason to select the references for combination, much less motivation to combine reference teachings, is lacking. In this regard, *In re Lee*, 61 USPQ 2d 1430, 1434 (Fed. Cir. 2002) requires the PTO to “explain the reason one of ordinary skill would have been motivated to select the references and to combine them to render the invention obvious” and notes that “conclusory statements,” like the unsupported statement of “a natural evolution of the art” repeated at page 2 of the outstanding action, “do not adequately address the issue of motivation to combine.” Similarly, the above-noted major modifications needed to modify the Härtel passive engine mount into any kind of active damper system contradict the further assertion repeated at page 2 of the outstanding action that one skilled in the art would abandon the Härtel passive system simply to have an active one.

The outstanding action on page 3, paragraph 5 stated “As to a reason for upgrading a passive system to an active system, perhaps applicants are unaware of the invention of computer control systems and the entire body of art in the automotive industry that has been upgrading passive systems to actively controlled systems for over 30 years. Applicants are advised to review technical journals in the automotive industry as well as other areas where

formerly passive systems have been upgraded to being actively controlled.” Applicants respectfully submit that no technical journal from the automotive industry or any other industry has been made of record, much less a journal showing a passive system modified in the suggested manner to create an active system. Also, applicants note that the present day production of many automobiles with passive engine mounts belies the thrust of the assertion.

Accordingly, it is respectfully maintained that the conclusory statements like the unsupported statement repeated on page 2 of the outstanding action of “a natural evolution of the art” do not adequately address the issue of motivation to combine, in contradiction with the binding legal precedent enunciated by the Court of Appeals for the Federal Circuit in *In re Lee*, noted above.

Moreover, even if some valid reason to combine the conflicting reference teachings had been presented, which is not the case, it is clear that the cited references do not teach or suggest all of the elements of Claim 1.

Claim 1 recites an active dynamic damper comprising:

a supporting member having a mounting plate portion and a central supporting portion fixed to a center of a surface of the mounting plate portion; a mass member which surrounds the central supporting portion of the mounting plate portion and is disposed such that the mass member is departed from the mounting plate portion, the mass member configured to vibrate along an axial direction of said central supporting portion; a rubber elastic body connecting portion configured to connect the central supporting portion of the supporting member with the mass member elastically and a vibration element configured to vibrate the mass member with a driving force generated by an input of a control pulse signal corresponding to vibration of a vibration generating source, said mounting plate portion being fixed on a vibration damping object member, wherein said mounting plate portion is fixed on the vibration damping object member through a rubber elastic supporting portion such that said mounting plate portion is departed from said vibration damping object member.

As discussed above, Härtel discloses a passive damping engine mount. The engine mount 18 shown in FIG. 2 of Härtel includes mass members 12, 13 with a leaf spring 1 on

each end. Leaf spring 1 is supported by means of a pair of rubber elastic bodies 19, 20 fixed on both ends of a fixing plate 21. When the mount is vibrated vertically, the mass members 12, 13 disposed on both ends of the leaf spring 1 are moved in an opposite direction to the motion of the mount due to deformation of the leaf spring 1. That is, the device described in Härtel has such a construction that by disposing the masses 12, 13 on both ends of the leaf spring 1, displacement of the mass members is accelerated by the leaf spring 1 using a moment and the mass members are not displaced themselves. The Härtel aims at damping engine vibration by a resonance between the rubber elastic bodies 19, 20 and vibration of the mass members send the leaf spring 1.

However, there is no teaching or suggestion that masses 12 and 13 surround any supporting portion, nor that masses 12, 13 are connected with a rubber elastic body to a central supporting portion surrounded by the mass. Accordingly, it is respectfully submitted that Härtel does not teach or suggest “a mass member which surrounds the central supporting portion,” or “a rubber elastic body connecting portion configured to connect the central supporting portion of the supporting member with the mass member elastically,” as recited in Claim 1.

Hitachi discloses an active vibration damper, which suppresses the vibration of a machine mounting base 5 loaded with a machine 4 affected by vibration easily. In this vibration damper, its body structure 3 supports a machine mounting base 5 through an elastic body 22 and piezoelectric actuators 6, 7 and the piezoelectric actuators 6, 7 are driven by controlling the controller 11 so as to damp the vibration of the machine 4 mounted on the machine mounting base 5.

However, there is no teaching or suggestion that a mass surrounds any supporting portion, nor that a mass is connected with a rubber elastic member to a central supporting portion surrounded by the mass. Thus, it is respectfully submitted that Hitachi does not teach

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or suggest "a mass member which surrounds the central supporting portion," or "a rubber elastic body connecting portion configured to connect the central supporting portion of the supporting member with the mass member elastically," as recited in Claim 1.

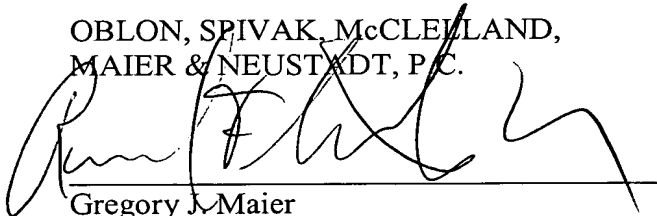
Since Hitachi and Härtel do not, alone or in combination, teach or suggest each and every element of Claim 1, Claim 1 is patentable thereover.

Claims 2 and 3 are dependent from Claim 1, which applicant believes is patentable over the cited references. Thus, applicant believes Claims 2 and 3 are patentable as well.

Accordingly, the outstanding rejection is traversed and the pending claims are believed to be in condition for formal allowance. An early and favorable action to that effect is, therefore, respectfully requested.

Respectfully submitted,

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